

**Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: AK Steel Corporation
Mailing Address: P.O. Box 191, Ashland, Kentucky 41105

Source Name: AK Steel Corporation
Mailing Address: Same as above

Source Location: U.S. Route 23W, Ashland, Kentucky 41105-0191

Permit Number: V-02-020
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Regional Office Huntington/Ashland
County: Boyd

Application
Complete Date: February 14, 1997
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**John S. Lyons, Director
Division for Air Quality**

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**47 & 48 (47 & 48) - Amanda Blast Furnace North and East Cast Houses, Equipped with a Flame Suppression System to Control Visible Emissions****Description:**

The Amanda blast furnace has two cast houses. Both cast houses are equipped with a flame suppression system to control visible emissions.

Construction commenced: Both cast houses were installed in 1963. The flame suppression systems were installed in 1992.

APPLICABLE REGULATIONS:

401 KAR 61:170, Existing blast furnace casthouses

1. Operating Limitations:

- a. Total iron production for the north and east casthouses shall not exceed 320 tons/hr and 2,552,000 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. The flame suppression system natural gas usage rate shall not exceed 42,000 ft³/hr and 205 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions from the blast furnace casthouses shall not equal or exceed 20% opacity. [401 KAR 61:170, Section 3(1)]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Monthly and annual iron production from both casthouses;
- b. Monthly and annual natural gas usage from both cast houses;
- c. Compliance with the hourly iron output shall be monitored each month by comparing the allowable hourly output rate to the total iron production each month divided by the hours of operation each month;
- d. Compliance with the hourly natural gas usage rate shall be monitored each month by comparing the allowable hourly output rate to the total natural gas usage rate each month divided by the hours of operation each month;
- e. Visible emissions on a weekly basis using EPA Reference Method 9.

5. Specific Record Keeping Requirements:

Retain records of the following for the Amanda Casthouses (401 KAR 52:020, Section 10):

- a. Monthly and annual iron production from both casthouses;
- b. Monthly and annual natural gas usage from both casthouses;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

47 & 48 (47 & 48) - Amanda Blast Furnace North and East Cast Houses, Equipped with a Flame Suppression System to Control Visible Emissions, cont.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**03 (03) - Amanda Blast Furnace Stoves****Description:**

There are three stoves, two stoves are heating and one is blasting. The primary fuel is blast furnace gas. The secondary fuel is natural gas.

Construction commenced: The Amanda blast furnace stoves were installed in 1963.

APPLICABLE REGULATIONS:

401 KAR 61:035, Existing process gas streams

401 KAR 61:020, Existing process operations

1. Operating Limitations:

- a. The total blast furnace gas usage rate shall not exceed 6.0 million ft³/hr and 44,000 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. The combined blast furnace gas usage rate of the Amanda Blast Furnace Stoves and the Amanda Flare shall not exceed 18.6 million ft³/hr and 87,500 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- c. The total natural gas usage rate shall not exceed 0.239 million ft³/hr and 1500 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not equal or exceed 40% opacity. [401 KAR 61:020, Section 3(1)(a)]
- b. Particulate matter emissions shall not exceed 58.95 lbs/hr. [401 KAR 61:020, Section 3(2)(a)]
- c. Sulfur dioxide emissions from the process gas stream shall not exceed 2.39 gr/dscf (4527.34 lbs/hr, based on 221,000 scfm flow rate through the stack). [401 KAR 61:035, Section 4]
- d. AK Steel shall not allow the emissions of carbon monoxide from the process gas stream to exit unless the gases are burned at 1300°F for five-tenths (0.5) seconds or greater in a direct flame afterburner or equivalent device. [401 KAR 61:035, Section 5]

3. Testing Requirements:

- a. A performance test to demonstrate compliance with the sulfur dioxide emissions shall be conducted within twelve months of issuance.

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Monthly and annual primary and secondary fuel usage rate;
- b. The combustion temperature of the process gas stream and ensure it remains above 1300°F;
- c. Compliance with the hourly gas usage rate limits shall be monitored each month by comparing the allowable hourly limits to the total gas usage rate each month divided by the hours of operation each month;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(03) - Amanda Blast Furnace Stoves, cont.

4. Specific Monitoring Requirements, cont.:

- d. Visible emissions on a quarterly basis using EPA Reference Method 9;
- e. Sulfur dioxide emission rate in (lbs/hr) = monthly fuel usage rate x emission factor listed in Kentucky EIS (as determined by the latest performance test)/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Amanda Blast Furnace Stoves (401 KAR 52:020, Section 10):

- a. Monthly and annual primary and secondary fuel usage rate;
- b. The combustion temperature of the process gas stream and ensure it remains above 1300°F;
- c. Quarterly opacity observations for two years;
- d. Hours of operation per month.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**04 (04) - Amanda Flare****Description:**

The flare is used to combust excess blast furnace gas.

Construction commenced: The Amanda blast furnace flare was installed in 1963.

APPLICABLE REGULATIONS:

401 KAR 61:035, Existing process gas streams

401 KAR 63:015, Flares

1. Operating Limitations:

- a. The total blast furnace gas flared shall not exceed 12.6 million ft³/hr and 43,000 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. The combined blast furnace gas usage rate of the Amanda Flare and the Amanda Blast Furnace Stoves shall not exceed 18.6 million ft³/hr and 87,500 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not be greater than 20% opacity for more than three minutes in any day. [401 KAR 63:015, Section 3]
- b. Sulfur dioxide emissions from the process gas stream shall not exceed 2.39 gr/dscf. [401 KAR 61:035, Section 4]
- c. AK Steel shall not allow the emissions of carbon monoxide from the process gas stream to exit unless the gases are burned at 1300°F for five-tenths (0.5) seconds or greater in a direct flame afterburner or equivalent device. [401 KAR 61:035, Section 5]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a quarterly basis using EPA Reference Method 9;
- b. Annual fuel usage rate;
- c. Compliance with the hourly gas usage rate limits shall be monitored each month by comparing the allowable hourly limits to the total gas usage rate each month divided by the hours of operation each month;
- d. The combustion temperature of the process gas stream and ensure it remains above 1300°F;
- e. Sulfur dioxide emission rate in (lbs/hr) = monthly fuel usage rate x emission factor listed in Kentucky EIS/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Amanda Flare (401 KAR 52:020, Section 10):

- a. Annual blast furnace gas fuel usage rate;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

04 (04) - Amanda Flare, cont.

5. Specific Record Keeping Requirements, cont.:

- b. The combustion temperature of the process gas stream and ensure it remains above 1300°F;
- c. Hours of operation per month.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

33 (33) - Amanda Bleeders

Description:

The Amanda bleeders act as pressure relief valves.

Construction commenced: The bleeders are part of the furnace and were installed in 1963.

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Record Keeping Requirements:**

Retain records of the number of upsets at the Amanda blast furnace and the duration of each upset.

6. **Specific Reporting Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

50 (50) - The Amanda Blast Furnace Slag Pit

Description:

The slag pit is where all the blast furnace slag accumulates when it is tapped out of the furnace.
Construction commenced: 1963.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions

1. Operating Limitations:

a. The slag processed shall not exceed 66.8 tons/hr and 585,072 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Particulate and PM₁₀ emissions shall not exceed 15.4 lbs/hr and 67.3 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
b. The discharge of visible fugitive dust emissions beyond the lot line of the property is prohibited. [401 KAR 63:010, Section 3(2)]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Annual slag process rate;
b. Compliance with the hourly slag processed limit shall be monitored each month by comparing the allowable hourly process rate to the actual slag processed each month divided by the hours of operation each month;
c. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly slag processed x emission factor from Kentucky EIS x (1-0.75)/hours of operation each month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Amanda Blast Furnace Slag Pit (401 KAR 52:020, Section 10):

- a. Monthly and annual slag process rate;
b. Hours of operation each month.

6. Specific Reporting Requirements: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**26 (26) - Amanda Blast Furnace Coal Injection equipped with Four Small Baghouses****Description:**

This emission point is made up of two machine points: coal drying and coal injection.

Construction commenced: The coal dryer and coal injection system were installed in 1973.

APPLICABLE REGULATIONS:

401 KAR 61:020, Existing process operations

1. Operating Limitations:

- a. Coal injection rate shall not exceed 40 tons/hr and 350,400 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. Total natural gas usage for the coal drier shall not exceed 0.00858 million ft³/hr and 75.15 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not equal or exceed 40% opacity. [401 KAR 61:020, Section 3(1)(a)]
- b. Particulate and PM₁₀ emissions from the coal injection shall not exceed 1.93 lbs/hr and 8.4 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Monthly and annual coal injection rate;
- b. Monthly and annual natural gas usage rate;
- c. Compliance with the hourly coal injection rate shall be monitored each month by comparing the allowable hourly charge rate to the total coal injected each month divided by the hours of operation each month;
- d. Compliance with the hourly gas usage rate limits shall be monitored each month by comparing the allowable hourly limits to the total gas usage rate each month divided by the hours of operation each month;
- e. Visible emissions on a monthly basis using EPA Reference Method 9;
- f. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly coal injection rate x emission factor from Kentucky EIS x (1-0.99)/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Amanda Blast Furnace Coal Injection (401 KAR 52:020, Section 10):

- a. Monthly and annual amount of coal injected;
- b. Monthly and annual natural gas usage;
- c. Hours of operation per month.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

26 (26) - Amanda Blast Furnace Coal Injection equipped with Four Small Baghouses, cont.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**86 & 87 (86 & 87) - B.O. Shop Blowing****Description:**

There are two vessels that require oxygen blowing to refine the molten metal to steel. The emissions resulting from the oxygen blowing are captured using a very effective hooding system and are sent to a wet venturi scrubber and then to a flare to combust all the generated carbon monoxide emissions.

Construction commenced: The steel making vessels were installed in 1963. The emission controls consisting of the wet venturi scrubber and flare for each vessel were installed in 1992.

APPLICABLE REGULATIONS:

401 KAR 61:080, Steel plants using existing basic oxygen process furnaces

1. Operating Limitations:

- a. The total steel process rate from both vessels shall not exceed 400 tons/hr and 2,776,000 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions from the wet scrubbers shall not equal or exceed 20% opacity. [401 KAR 61:080, Section 3(3)]
- b. As measured during the initial or main oxygen blowing period, AK Steel shall not cause any gases to exit the venturi scrubbers which have particulate concentrations in excess of 0.03 gr/dscf. [401 KAR 61:080, Section 3(1)]

3. Testing Requirements:

- a. Performance tests to demonstrate compliance with the particulate matter emissions shall be conducted within twelve months of issuance.

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Monthly and annual steel production rate from both vessels;
- b. Visible emissions on a weekly basis using U.S. EPA Reference Method 9;
- c. Compliance with the hourly steel process rate limit shall be monitored each month by comparing the allowable hourly process rate to the total steel processed each month divided by the hours of operation each month;
- d. Particulate emission rate in (lbs/hr) = monthly production rate x emission factor from Kentucky EIS (as determined by the latest performance test)/(hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the following for the B.O. Shop Blowing (401 KAR 52:020, Section 10):

- a. Monthly and annual steel production rate from both vessels;
- b. Hours of operation per month.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

86 & 87 (86 & 87) - B.O. Shop Blowing, cont.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**88 (88) - B. O. Shop Fugitives****Description:**

This emission point includes emissions resulting from charging, tapping, desulfurizing, hot metal transfer, slag skimming, and lime handling. All these emissions are conveyed to a baghouse.

Construction commenced: The steel making vessels were installed in 1963. The baghouse which control these emissions was installed in 1992.

APPLICABLE REGULATIONS:

401 KAR 61:080, Steel plants using existing basic oxygen process furnaces

1. Operating Limitations:

None

2. Emission Limitations:

- a. Visible emissions from the baghouse exhaust shall not equal or exceed 20% opacity. [401 KAR 61:080, Section 3(3)]
- b. AK Steel shall not cause any gases to exit the baghouse which has a particulate concentration in excess of 0.010 gr/dscf. [401 KAR 61:080, Section 3(2)]
- c. Visible emissions from any dust handling equipment shall not equal or exceed 10% opacity. [401 KAR 61:080, Section 3 (5)]

3. Testing Requirements:

- a. Performance tests to demonstrate compliance with the particulate matter emissions shall be conducted within twelve months of issuance.

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a weekly basis using U.S. EPA Reference Method 9.
- b. Particulate emission rate in (lbs/hr) = monthly production rate x emission factor from Kentucky EIS (as determined by the latest performance test)/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the monthly hours of operation for the B.O. Shop Fugitives (401 KAR 52:020, Section 10).

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

85 (85) - B.O. Shop Roof Monitor

Description:

This emission point includes emissions that are not captured by the venturi scrubbers during the oxygen blowing period in addition to the fugitives which were not captured by the baghouse that controls fugitive emissions from the B.O. Shop.

Construction commenced: The building has been in existence since 1963.

APPLICABLE REGULATIONS:

401 KAR 61:080, Steel plants using existing basic oxygen process furnaces

1. Operating Limitations: None

2. Emission Limitations:

- a. Visible emissions from the roof monitors shall not equal or exceed 20% opacity for more than eleven (11) times as observed at fifteen (15) second intervals over a period of any 60 consecutive minutes. [401 KAR 61:080, Section 3(4)]
- b. Particulate emissions from the B.O. Roof Monitor shall not exceed 54.4 lbs/hr and 238.4 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- c. PM₁₀ emissions from the B.O. Roof Monitor shall not exceed 36.5 lbs/hr and 159.8 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a weekly basis using U.S. EPA Reference Method 9;
- b. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly production rate x composite emission factor from Kentucky EIS for charging, tapping, hot metal transfer, desulfurization, slag skimming, and lime handling/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the monthly hours of operation for the B.O. Shop Roof Monitor (401 KAR 52:020, Section 10).

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

51 (51) - B.O. Shop Slag Processing Area

Description:

A large pit where the B.O. Shop slag gets dumped. It also includes the kish pot station.
Construction commenced: The pit has been there since 1963.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions

1. Operating Limitations:

- a. The slag processed shall not exceed 43.8 tons/hr and 383,334 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Particulate and PM₁₀ emissions shall not exceed 10.1 lbs/hr and 44.1 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. The discharge of visible fugitive dust emissions beyond the lot line of the property is prohibited. [401 KAR 63:010, Section 3(2)]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Monthly and annual slag dumped;
- b. Compliance with the hourly slag processed limit shall be monitored each month by comparing the allowable hourly process rate to the actual slag processed each month divided by the hours of operation each month;
- c. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly slag processed x emission factor from Kentucky EIS x (1-0.75)/hours of operation per month.

5. Specific Record Keeping Requirements:

Retain records of the following for the B.O. Shop Slag Dump (401 KAR 52:020, Section 10):

- a. Monthly and annual slag dumped;
- b. Hours of operation per month.

6. Specific Reporting Requirements:

See Section G, General Provisions.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**38 (38) - Ladle Refiner****Description:**

The Ladle Refiner is a steel purification process equipped with a baghouse.

Construction commenced: The Ladle Refiner and the baghouse were installed in 1983.

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

1. Operating Limitations:

- a. The total steel charged to the ladle refiner shall not exceed 400 tons/hr and 2,776,000 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not equal or exceed 20% opacity. [401 KAR 59:010, Section 3(1)(a)]
- b. Particulate and PM₁₀ emissions from the Ladle Refiner shall not exceed 3.8 lbs/hr and 16.6 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a monthly basis using U.S. EPA Reference Method 9;
- b. Monthly and annual steel charged to the ladle refiner;
- c. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly production rate x emission factor from Kentucky EIS x (1-0.85)/hours of operation per month;
- d. Compliance with the hourly steel charge limit shall be monitored each month by comparing the allowable hourly charge rate to the total steel charged each month divided by the hours of operation each month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Ladle Refiner (401 KAR 52:020, Section 10):

- a. Monthly opacity observations for two years;
- b. Monthly and annual steel charged to the ladle refiner;
- c. Hours of operation per month.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**89 (89) - Continuous Slab Caster****Description:**

The continuous slab caster is made up of three machine points: the tundish station, the combustion of natural gas to keep the tundish hot, and the torch cutting process. A tundish is a big metal container which holds molten steel.

The building which houses all three operations acts to control some of the particulate emissions resulting from the tundish station. The torch cutting process is located in a certain area of the building which enables the building to catch 95% of the particulate matter generated. The building capture of particulate matter resulting from the tundish station was assumed to be 75%.

Construction commenced: 1990

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

1. Operating Limitations:

- a. The total steel cast shall not exceed 400 tons/hr and 2,720,000 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- b. Total natural gas usage rate for the burners to keep the tundish warm shall not exceed 17.17 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- c. Total oxygen gas usage rate for the torch cutter shall not exceed 92 million ft³/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate and PM₁₀ emissions from the tundish station shall not exceed 4.34 lbs/hr and 23.8 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]
- c. Particulate and PM₁₀ emissions from the torch cutter shall not exceed 0.468 lbs/hr and 2.05 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a quarterly basis using U.S. EPA Reference Method 9;
- b. Monthly and annual natural gas usage;
- c. Monthly and annual oxygen usage;
- d. Compliance with the hourly cast steel rate shall be monitored each month by comparing the allowable hourly rate to the total steel cast each month divided by the hours of operation each month;
- e. Particulate and PM₁₀ emission rate (torch cutter) in (lbs/hr) = monthly molten steel cast x emission factor from Kentucky EIS x (1-0.75)/hours of operation per month;
- f. Particulate and PM₁₀ emission rate (tundish station) in (lbs/hr) = monthly oxygen usage x emission factor from Kentucky EIS x (1-0.95)/hours of operation per month.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

89 (89) - Continuous Slab Caster, cont.

5. Specific Record Keeping Requirements:

Retain records of the following for the Continuous Slab Caster (401 KAR 52:020, Section 10):

- a. Monthly and annual tons steel cast;
- b. Annual natural gas usage;
- c. Annual oxygen usage;
- b. Hours of operation per month.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

90 (90) - Emergency Argon Stirring

Description:

This is a backup process to the ladle refiner.

Construction commenced: The emergency argon stirring station was installed in 1992.

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

1. Operating Limitations:

Total steel processed shall not exceed 22.2 tons/hr and 194,400 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

2. Emission Limitations:

- a. Visible emissions shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate and PM₁₀ emissions from Emergency Argon Stirring shall not exceed 0.555 lbs/hr and 2.43 tons/yr. [Self imposed to preclude 401 KAR 51:017, Prevention of Significant Deterioration]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. Visible emissions on a quarterly basis using U.S. EPA Reference Method 9;
- b. Particulate and PM₁₀ emission rate in (lbs/hr) = monthly molten steel x emission factor from Kentucky EIS x (1-0.75)/hours of operation per month;
- c. Compliance with the hourly steel process limit shall be monitored each month by comparing the allowable hourly steel process rate to the total steel processed each month divided by the hours of operation each month.

5. Specific Record Keeping Requirements:

Retain records of the following for the Emergency Argon Stirring (401 KAR 52:020, Section 10):

- a. Quarterly visible emission observations for two years;
- b. Hours of operation per month.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**52, 53, 54, and 55 (52, 53, 54, 55) - Boilers No. 5, 6, 7, and 13****Description:**

Steam boilers, manufactured by Babcock-Wilcox. Primary fuel is blast furnace gas. Backup fuels are No. 6 fuel oil and natural gas. Maximum rated capacity of Boilers No. 5, 6, and 7 is 245 MMBTU/hr. Boiler No. 13 is slightly smaller at 244.4 MMBTU/hr.

Construction commenced: Boilers No. 5, 6, and 7 were installed in 1962. Boiler No. 13 was installed in 1978.

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

401 KAR 61:015, Existing indirect heat exchangers

1. Operating Limitations:

None

2. Emission Limitations:

- a. Particulate matter emissions from boilers 5, 6, and 7 shall not exceed 0.19 lbs/MMBTU each. [401 KAR 61:015, Section 4(1)]
- b. Visible emissions from boilers 5, 6, and 7 shall not equal or exceed 20% opacity, or shall not equal or exceed 40% opacity for more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot. [401 KAR 61:015 Section 4(2)]
- c. Sulfur dioxide emissions from boilers 5, 6, and 7 shall not exceed 4.0 lbs/MMBTU each. [401 KAR 61:015, Section 5(1)]
- d. Particulate matter emissions from boiler 13 shall not exceed 0.10 lbs/MMBTU each [401 KAR 59:015, Section 4(1)]
- e. Visible emissions from boiler 13 shall not equal or exceed 20% opacity, or shall not equal or exceed 40% opacity for more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot. [401 KAR 59:015, Section 4(2)]
- f. Sulfur dioxide emissions from boiler 13 shall not exceed 0.8 lbs/MMBTU. [401 KAR 59:015, Section 5(1)]

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. The amount of each fuel burned on a monthly basis;
- b. Hours of operation of the indirect heat exchanger on a monthly basis;
- c. Compliance with the particulate limit shall be demonstrated by calculating particulate emissions using fuel usage rate, fuel analysis, and emission factor information;
- d. Compliance with the sulfur dioxide limit shall be demonstrated by calculating sulfur dioxide emissions using fuel usage rate, fuel analysis, and emission factor information.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

52, 53, 54, and 55 (52, 53, 54, 55) - Boilers No. 5, 6, 7, and 13, cont.

5. Specific Record Keeping Requirements:

Retain records of the following for the Boilers No. 5, 6, 7 and 13 (401 KAR 52:020, Section 10):

- a. The amount of each fuel burned on a monthly basis;
- b. Hours of operation of the indirect heat exchanger on a monthly basis.

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

56 (56) - 170.5 MMBTU/hr Package Boiler

Description:

A 170.5 MMBTU/hr natural gas package boiler. No. 6 fuel oil used as backup fuel.

Construction commenced: The package boiler was installed in 1997.

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

1. Operating Limitations:

- a. The permittee shall only operate this affected facility at any time when one of boilers 5, 6, 7, or 13 is out of service.

2. Emission Limitations:

- a. Particulate matter emissions shall not exceed 0.10 lbs/MMBTU. [401 KAR 59:015, Section 4(1)]
- b. Visible emissions shall not equal or exceed 20% opacity, except during cleaning the fire box or blowing soot, at which time visible emissions shall not equal or exceed 40% opacity for more than six (6) consecutive minutes in any sixty (60) consecutive minutes. [KAR 59:015, Section 4(2)]
- c. Sulfur dioxide emissions shall not exceed 0.8 lbs/MMBTU. [401 KAR 59:015, Section 5(1)]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

- a. The amount of each fuel burned on a monthly basis;
- b. Hours of operation of the indirect heat exchanger on a monthly basis;
- c. Compliance with the particulate limit shall be demonstrated by calculating particulate emissions using fuel usage rate, fuel analysis, and emission factor information;
- d. Compliance with the sulfur dioxide limit shall be demonstrated by calculating sulfur dioxide emissions using fuel usage rate, fuel analysis, and emission factor information;
- e. Opacity observations shall be taken for each day that No. 6 fuel oil is burned.

5. Specific Record Keeping Requirements:

Retain records of the following for the Package Boiler (401 KAR 52:020, Section 10):

- a. The amount of each fuel burned on a monthly basis;
- b. Hours of operation of the indirect heat exchanger on a monthly basis;

6. Specific Reporting Requirements:

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

102 (102) - 1-A Down river Horizontal Ladle Preheater with 15.1 MMBTU/hr burner.

103 (103) - 1-B Down river Horizontal Ladle Preheater with 15.1 MMBTU/hr burner.

104 (104) - 2-A Down river Vertical Ladle Preheater with 15 MMBTU/hr burner.

105 (105) - 2-B Down river Vertical Ladle Preheater with 15 MMBTU/hr burner.

106 (106) - 3-A Down river Vertical Ladle Preheater with 7.26 MMBTU/hr burner.

107 (107) - 3-B Down river Vertical Ladle Preheater with 7.26 MMBTU/hr burner.

Description:

The ladle heaters are used to heat the ladles before the molten metal is poured into them.

All preheaters combust natural gas only.

Construction commenced: 1968

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

a. Annual natural gas fuel usage rate for each source.

5. **Specific Record Keeping Requirements:**

Retain records of the following for the six ladle preheaters (401 KAR 52:020, Section 10):

a. Annual natural gas fuel usage rate for each source.

6. **Specific Reporting Requirements:**

Report annual natural gas fuel usage rate for each source to the Division's Ashland Regional Office.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**100 (100) - No. 3 Coating Line Direct Fire Heater and
101 (101) - No. 3 Coating Line Radiant Tube Heater**

Description:

Both heaters are continuous strip annealing furnaces made by Selas Furnace Company.

The direct fire heater is equipped with 56 MMBTU/hr of burner capacity.

The direct fire radiant tube heater is equipped with 60 MMBTU/hr of burner capacity.

Construction commenced: Both units were installed in 1968.

APPLICABLE REGULATIONS:

401 KAR 61:020, Existing process operations

1. **Operating Limitations:** None
2. **Emission Limitations:**
 - a. Visible emissions shall not equal or exceed 40% opacity. [401 KAR 61:020, Section 3(1)(a)]
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:**

AK Steel shall monitor the following (401 KAR 52:020, Section 10):

 - a. Annual natural gas fuel usage rates from both processes;
 - b. Visible emissions on a quarterly basis using EPA Reference Method 9.
5. **Specific Record Keeping Requirements:**

Retain records of the following for the No. 3 Coating Line Direct Fired Heater and Radiant Tube Heater (401 KAR 52:020, Section 10):

 - a. Annual natural gas fuel usage rates from both processes.
6. **Specific Reporting Requirements:**

AK Steel shall report all the opacity measurements that are in excess of the emission limits specified in this permit on a semiannual basis to the Division's Ashland Regional Office. (401 KAR 52:020, Section 10)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

108 (108) - Roads and Parking Lots

Description:

These are all the roads and parking lots at AK Steel West Works.

Construction commenced: The roads and parking lots have been there since the plant's inception, 1920's.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions

1. **Operating Limitations:** None
2. **Emission Limitations:**
 - a. The discharge of visible fugitive dust emissions beyond the lot line of the property is prohibited. [401 KAR 63:010, Section 3(2)]
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Record Keeping Requirements:**

Records of the times the roads are watered shall be maintained at the source.
6. **Specific Reporting Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**109 (109) - Unloading Raw Materials and
110 (110) - Stockpiles**

Description:

Both emission units are responsible for generating fugitive emissions.
Construction commenced: 1920's.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions

1. Operating Limitations:

AK Steel shall spray water or other suppressants, weather conditions permitting, at locations throughout the material handling and storage system when needed as determined by observations.

2. Emission Limitations:

a. The discharge of visible fugitive dust emissions beyond the lot line of the property is prohibited. [401 KAR 63:010, Section 3(2)]

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Record keeping Requirements: None

6. Specific Reporting Requirements: None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 52:020, Section 5(2). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Regulation</u>
1. Bellefonte Boiler House	
4500 gal 15% sodium hypochlorite storage tank	None
3000 gal Betz DT-38 Tank	None
3500 gal Nalco 7215 Tank	None
4000 gal Nalco 7204T Tank #1	None
4000 gal Nalco 7204T Tank #2	None
2. Waste Oil Treatment	
20,000 gal waste oil/water separator #1	None
20,000 gal waste oil/water separator #2	None
10,000 gal mix tank #1	None
10,000 gal mix tank #2	None
10,000 gal mix tank #3	None
6000 gal waste oil storage tank	None
3500 gal Betz ULP644 tank	None
12,500 gal tank	None
3. Transportation Department	
6000 gal dust suppressant tank	None
3-350 gal each lube/hydraulic oil tanks	None
4. Main Water Clarification Plant	
3-350 gal each lube/hydraulic oil tanks	None
4000 gal each lube/hydraulic oil tanks	None
3-350 gal each lube/hydraulic oil tanks	None
5. Caster Water Treatment	
250 gal sulfuric acid tank	None
6. Blast Furnace Department	
350 gal lube motor oil tank	None
350 gal hydraulic oil tank	None
Amanda Furnace Relief Valve	401 KAR 59:010

SECTION C - INSIGNIFICANT ACTIVITIES, (CONTINUED)

- | | |
|--|----------------|
| 7. Basic Oxygen Furnace Caster | |
| 6-350 gal each lube/hydraulic oil tanks | 401 KAR 59:010 |
| 2-30 MMBTU/hr Caster Tundish preheaters | 401 KAR 59:010 |
| | |
| 8. No. 3 Coating Line | |
| Alkaline precleaner exhaust #1 | 401 KAR 59:010 |
| Alkaline precleaner exhaust #2 | 401 KAR 59:010 |
| Chemical treatment section | 401 KAR 59:010 |
| Skin pass mill | 401 KAR 59:010 |
| 14,000 gal Bonderite Repl B Storage Tank | 401 KAR 59:010 |
| 14,000 gal Bonderite 61 Storage Tank | 401 KAR 59:010 |
| 3-2 MMBTU/hr strip dryers | None |
| | |
| 9. Space Heaters | |
| 1-4.0 MMBTU/hr natural gas fired – Bldg. 770 | None |
| 1-3.0 MMBTU/hr natural gas fired – Bldg. 770 | None |
| 1-4.0 MMBTU/hr natural gas fired – Bldg. 513 | None |
| 1-2.5 MMBTU/hr natural gas fired – Bldg. 513 | None |
| | |
| 10. Miscellaneous | |
| 2-16 gal Safety Kleen parts cleaners | None |
| 3-30 gal Safety Kleen parts cleaners | None |
| 2-34 gal Safety Kleen parts cleaners | None |
| 7-44 gal Safety Kleen parts cleaners | None |
| | |
| 11. Cooling Towers | |
| Main Clarification | None |
| Plant | None |
| Caster | None |
| | |
| 12. Reservoir | None |
| | |
| 13. Emergency Generators | |
| New Age, Model NTA855-G2 WW109T) | None |
| New Age, Model NTA855-G2 (WW110T) | None |
| New Age, Model NTA855-G2 (WW111T) | None |
| New Age, Model 6CTA8,3-G (WW112T) | None |
| | |
| 14. B.O. Shop Department | |
| Desulfurization Raw Materials Handling | 401 KAR 59:010 |

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the material incorporated by reference in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and VOC emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements.
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.[Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1]
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Material incorporated by reference by 401 KAR 52:020, Sections 1b(IV) 2 and 1a(8)]
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control quipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
 - e. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, [other than continuous emission or opacity monitors](#), shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.
[Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.]

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due prior to January 30th and July 30th of each year. [Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3\(3\).](#) All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within [30 days](#). Other deviations from permit requirements shall [be included in the semiannual report required by Section F.6.](#) [Material incorporated by reference by 401 KAR 52:020, Section 1b V 3, 4.]
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality

Ashland Regional Office

P.O. Box 1507

3700 13th Street

Ashland, Kentucky 41105-1507

U.S. EPA Region IV

Air Enforcement Branch

Atlanta Federal Center

61 Forsyth St.

Atlanta, Georgia 30303-8960

Division for Air Quality

Central Files

803 Schenkel Lane

Frankfort, Kentucky 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including termination, revocation and reissuance, revision or denial of a permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 3]
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 6]
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source. [**Acid Rain sources only**]

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

3. The permittee shall furnish information upon requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 7,8]
4. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [Material incorporated by reference by 401 KAR 52:020, Section 7(1)]

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 14]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 4]
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 15)b]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Material incorporated by reference by 401 KAR 52:020, Section 1a, 10]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]
11. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 9]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source
16. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in the permit and
 - (b) Non-applicable requirements expressly identified in this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020, Section 12]
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL PROVISIONS (CONTINUED)

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the cabinet may extend these time periods if the source shows good cause.
 4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the cabinet.
 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. ***These performance tests must also be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such a performance test.***
 6. Terms and conditions in this permit established pursuant to the construction authority of 401KAR 51:017 or 401 KAR 51:052 shall not expire.
 7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.
- (e) Acid Rain Program Requirements
1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations are exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- e. This requirement does not relieve the source from other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None